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A TERMINOLOGY FOR KNOWINGS AND KNOWNS[1]

SCIENCE uses its technical names efficiently. Such names serve to mark off certain portions of the scientific subject-matter as provisionally acceptable, thereby freeing the worker's attention for closer consideration of other portions that remain problematic. The efficiency lies in the ability given the worker to hold such names steady—to know what he properly names with them—first at different stages of his own procedure, and then in interchange with his associates.

Theories of knowledge provide their investigators with no such dependable aids. The traditional namings they employ have primitive cultural origins and the supplemental "terms" they evolve have frequently no ascertainable application as names at all.

We believe that the time has come when a few leading names for knowings and knowns can be established and put to use. We believe further that this should be undertaken upon a scientific basis, where by "scientific" we understand very simply "factual inquiry," in which the knowing man is accepted as a factual component of the factual cosmos, as he is elsewhere in modern research. We know of no other basis upon which to anticipate dependable results—more particularly since the past history of "epistemology" is filled with danger-signs.

What we advocate is in very simple statement a passage from loose to firm namings. Some purported names do little more than indicate fields of inquiry—some, even, do hardly that. Others specify with a high degree of firmness. The word "knowledge," as a name, is a loose name. We do not employ it in the titles of our papers and we shall not use it in any significant way as we proceed. It is often a convenience, and it is probably not objectionable—at least it may be kept from being dangerous—where there is no stress upon its accurate application, and no great probability that a reader will assume that there is; at any rate we shall thus occasionally risk it. We shall rate it as No. 1 on a list of

[1] This article is the second of a series (announced in Volume XLII, 1945, pp. 5–6) on "A Search for Firm Names"; the first appeared in Volume XLII (1945), pp. 6–27, 39–51, under the title "On a Certain Vagueness in Logic."

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"vague words"[2] which we shall call attention to and add to from time to time in footnotes. Only through prolonged factual inquiry, of which little has as yet been undertaken, can the word "knowledge" be given determinable status with respect to such questions as: (1) the range of its application to human or animal behaviors; (2) the types of its distribution between knowers, knowns, and presumptive intermediaries; (3) the possible localizations implied for knowledges as present in space and time. In place of examining such a vague generality as the word "knowledge" offers, we shall speak of and concern ourselves directly with knowings and knowns—and, moreover, in each instance with those particular forms of knowings and knowns in which we may hope for reasonably definite identifications.

I

The conditions which namings such as we seek must satisfy, positively and negatively, include the following:

1. The names are to be based on observations such as are accessible to and attainable by everybody. This condition treats as negligible to knowledge any report of purported observation which the reporter avows to be radically and exclusively private.

2. The status of observation and the use of reports upon it is to be tentative, postulational, hypothetical.[3] This condition excludes all purported materials and all alleged fixed principles which are offered as providing original and necessary "foundations" for either the knowings or the knowns.

3. The aim of the observation and naming adopted is to promote further observation which in turn advances to similar use under similar aim. This condition excludes all namings which are asserted to give, or which claim to be, finished reports on "reality."

The above conditions amount to saying that the names we need have to do with knowings and knowns in and by means of continuous operation and test, in work in which any knowing or known establishes itself or fails to establish itself solely through continued search and research, and never on the ground of any

[2] Even the words "vague," "firm," and "loose," as we at this stage are able to use them, are loosely used. We undertake development definitely and deliberately within an atmosphere—one might perhaps better call it a swamp—of vague language. We reject the alternative—the initial dependence on some schematism of verbal impactions—and propose to destroy the authoritarian claims of such impactions by means of distinctions later to be introduced, including particularly that between specification and definition.

[3] The postulations we are using, their origin and status, will be discussed in a following paper. See also Dewey, *Logic*, Chap. I, and Bentley, "Postulation for Behavioral Inquiry," this JOURNAL, Vol. XXXVI (1939), pp. 405–413.

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alleged outside "foundation," "premise," "axiom," or *ipse dixit* assertion. In line with this attitude we do not assert that the conditions stated above are "true"; we are not even arguing in their behalf. We advance them as the conditions we hold should be satisfied by the kind of names that are needed if we are to advance knowledge of knowledge. Our procedure, then, does not stand in the way of inquiry into knowledge by other workers on the basis either of established creeds or tenets, or of alternative hypotheses; we but state the ground upon which we ourselves wish to work, in the belief that others are prepared to coöperate. The postulates and methods we wish to use are, we believe, akin to those of the sciences which have so greatly advanced knowledge in other fields.

The difficulties in our way are serious, but we believe these difficulties have their chief source in the control exercised over men by traditional phrasings originating when observation was relatively primitive and lacked the many important materials which now are easily available. Cultural conditions (such as ethnological research reveals) favored in earlier days the introduction of factors which have now been shown to be irrelevant to the operations of inquiry and to stand in the way of the formation of a straightforward theory of knowledge—straightforward in the sense of setting forth conclusions reached through inquiry into knowledge as itself fact.

The basic postulate of our procedure is that knowings are observable facts in the same sense exactly as are the subject-matters which are known. A glance at any collection of books and periodicals discloses the immense number of subject-matters that have been studied and the various grades of their establishment in the outcome. No great argument is required to warrant the statement that this wide field of knowledge (possessed of varying depths in its different portions) can be studied not only in terms of things [4] known, but also in terms of the knowings.

In the previous paper instances were pointed out among prominent contemporary logicians of an extraordinary confusion arising from an uncritical use in logic, as theory of knowledge, of forms of primitive observation, sometimes to the utter neglect of the fuller and keener observation now available, and in other cases producing such a mixture of two incompatible types of observation as inevitably wrecks achievement. It was affirmed in

[4] "Thing" is another of our vague words. It is in good standing and useful where vague general reference is all that is intended, and where no stress of the types suggested by "object," "entity," or "phenomenon" enters. In such situations only should it be used.

that paper that further advance will require complete abandonment of the customary isolation of the word from the man speaking, and likewise also of the word from the thing spoken of or named. In effect and often overtly words are dealt with in the logics as if they were a new and third kind of fact lying between man as speaker and things as spoken of. The net result is to erect a new barrier in human behavior between the things which are involved and the operating organisms. While the logical writers in question have professedly departed from the earlier epistemological theories framed in terms of a mind basic as subject and an external world as object, competent analysis shows that the surviving separation which their writings exhibit is the ghost of the seventeenth-century epistemological separation of knowing subject and object known, as that in turn was the ghost of the medieval separation of a "spiritual" soul from a "material" nature and body.

The importance we allot to the introduction of firm names is very quickly felt when one begins to make observation of knowledge as a going fact of behavioral activity. Observation not only separates but also brings together in combination in a single sweep matters which at other times have been treated as isolated and hence as requiring to be forced into organization ("synthesized" is the traditional word) by some outside agency. The seeing of language with all of its speakings and writings as man-himself-in-action-dealing-with-things is observation of the combining type. Meaningful conveyance is, of course, included, as itself of the very texture of language. The full event is before us thus in durational spread. The observation is no longer in terms of "isolates" requiring to be "synthesized." Such procedure is common enough in all science. The extension as observation in our case is that we make it cover the speaker or knower along with the spoken of or known as one common durational event. Here primary speaking is as observable as is a bird in flight. The inclusion of books and periodicals as a case of observable man-in-action is no different in kind from the observation of the steel girders of a bridge connecting the mining and smelting of ores with the operations of a steel mill, and with the building of bridges in turn out of the products. For that matter it is no different from observation extended enough to take in not just a bird while in flight but bird-nest building, egg-laying, and hatching. Observation of this general type sees man-in-action not as something radically set over against an environing world, nor yet as merely acting "in" a world, but as action *of* and *by* the world in which the man belongs as an integral constituent.

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To see an event filling a certain duration of time as a description across a full duration rather than as composed of an addition or other kind of combination of separate, instantaneous, or short-span events, is another aspect of such observation. Procedure of this type was continuously used by Peirce, though he had no favorable opportunity for developing it, and was basic to him from the time when in one of his earliest papers he stressed that all thought is in signs and requires a time.[5] The "immediate" or "neutral" experience of William James was definitely an effort at such a form of direct observation in the field of knowings. Dewey's development in use of interaction and transaction, and in presentation of experience as neither subjective nor objective, but as a method or system of organization, is strongly of this form; his psychological studies have made special contributions in this line, and in his *Logic, The Theory of Inquiry* (1938), following upon his logical essays of 1903 and 1916, he has developed the processes of inquiry in a situational setting. Bentley's *Process of Government* in 1908 developed political description in a manner approaching what we would here call "transactional," and his later analysis of mathematics as language, his situational treatment of behavior, and his factual development of behavioral space-time, belong in this line of research.[6]

[5] *Collected Papers*, 5.251: "The only cases of thought which we can find are of thought in signs"; 5.253: "To say that thought can not happen in an instant but requires a time is but another way of saying that every thought must be interpreted in another, or that all thought is in signs." See also comment in our preceding paper, p. 8. For a survey of Peirce's development (the citations being to his *Collected Papers*) see: "Questions Concerning Certain Faculties Claimed for Man" (1868), 5.213 to 5.263; "How to Make our Ideas Clear" (1878), 5.388 to 5.410; "A Pragmatic Interpretation of the Logical Subject" (1902), 2.328 to 2.331; "The Ethics of Terminology" (1903), 2.219 to 2.226. On his use of leading principles; see 3.154 to 3.171 and 5.365 to 5.369; on the open field of inquiry, 5.376n; on truth, 5.407, 5.565; on the social status of logic and knowledge, 2.220, 2.654, 5.311, 5.316, 5.331, 5.354, 5.421, 5.444, 6.610, 2.661; on the duplex nature of "experience," 1.321, 5.51, 5.284, 5.613.

[6] For James's development, see his essays in *Mind* in the early eighteen-eighties; Chapter X on "Self" in the *Principles of Psychology*, 1890; the epilogue to the *Briefer Course*, 1893; and *Essays in Radical Empiricism*, 1912. For Dewey, see *Studies in Logical Theory*, 1903; *How We Think*, 1910 (revised, 1933); *Essays in Experimental Logic*, 1916; *Experience and Nature*, 1925; *Logic, the Theory of Inquiry*, 1938; three psychological papers (all reprinted in *Philosophy and Civilization*, 1931) as follows: "The Reflex Arc Concept in Psychology," 1896—reprinted as "The Unit of Behavior"; "The Naturalistic Theory of Perception by the Senses," 1925; "Conduct and Experience," 1930. See also "Context and Thought," *University of California Publications in Philosophy*, 1931; "How is Mind to be Known?", this JOURNAL, Vol. XXXIX (1942), pp. 29–35; and "By Nature and by Art,"

If there should be difficulty in understanding this use of the word "observation," the difficulty illustrates the point previously made about the introduction of material from an incompetent source. The current philosophical notion of observation is derived from a psychology of "consciousness" (or some version of the "mental" as an isolate), and it endeavors to reduce what is observed either to some single sensory quality or to some other "content" of such short time-span as to have no connections except what may be provided through inference as an operation outside of observation. As against such a method of obtaining a description of observation, the procedure we adopt reports and describes observation on the same basis that the worker in knowledge—astronomer, physicist, psychologist, etc.—employs when he makes use of a test observation in arriving at the conclusions to be accepted as known. We proceed upon the postulate that *knowing* is always and everywhere the inseparable correlate of *the known*—that the two are twin aspects of common fact.

II

"Fact" is a name of central position in the material we propose to use in forming a terminology. If there are such things as Facts, and if they are of such importance that they have a vital status in questions of knowledge, then in any theory of knowings and knowns we should be able to characterize fact—we should be able to say, that is, that we know what we are talking about when we use the word as something which is definitely identifiable in the range of observation and firm naming.[7] The primary con-

this JOURNAL, Vol. XLI (1944), pp. 281–292. For Bentley, see *The Process of Government*, 1908; *Relativity in Man and Society*, 1926; *Linguistic Analysis of Mathematics*, 1932; *Behavior, Knowledge, Fact*, 1935; also three papers on situational treatment of behavior, this JOURNAL, Vol. XXXVI (1939), pp. 169–181, 309–323, 405–413; "The Factual Space and Time of Behavior," this JOURNAL (1941), pp. 477–485; "The Human Skin: Philosophy's Last Line of Defense," *Philosophy of Science*, Vol. 8 (1941), pp. 1–19; "Observable Behaviors," *Psychological Review*, Vol. 47 (1940), pp. 230–253; "The Behavioral Superfice," *Psychological Review*, Vol. 48 (1941), pp. 39–59; "The Jamesian Datum," *Journal of Psychology*, Vol. 16, (1942), pp. 35–79.

[7] The wretched status of the word "fact" with respect to its "knowing" and its "known" (and in other respects as well) was illustrated in our preceding paper, pp. 48–49. Use of quotation marks to indicate that "a name" is under consideration rather than "the named" is common, and some logicians have attempted to make a pillar of construction out of it. We have exhibited the unreliability of this in the preceding articles. Solely as a matter of passing convenience we shall follow the custom at times, and also at times capitalize a word to indicate that "the named" and not the "name" is intended. The procedure is both vague and linguistic, and so may be classified along with the "vague words" one must ever keep a sharp eye upon.

sideration in fulfilling the desired condition with respect to Fact is that the activity by which it is identified and the *what* that is identified are both required, and are required in such a way that each is taken along with the other, and in no sense as separable. Our terminology is involved in fact, and equally "fact" is involved in our terminology. This repeats in effect the statement that knowledge requires and includes both knowings and knowns. Anything named "fact" is such both with respect to the knowing operation and with respect to that which is known.[8] We establish for our use with respect to both fact and knowledge that we have no "something known" and no "something identified" apart from its know*ing* and identify*ing*, and that we have no know*ing* and identify*ing* apart from the somewhats and somethings that are being known and identified. Again we do not put forth this statement as a truth about "reality," but as the only position which we find it possible to take on the ground of that reference to the observed which we regard as an essential condition of our inquiry. The statement is one about ourselves observed in action in the world. From the standpoint of what is observable it is of the same straightforward kind as is the statement that when chopping occurs something is chopped, and that when seeing takes place something is seen. We select the name "fact" because we believe that it carries and suggests this "double-barrelled" sense (to borrow a word from William James), while such words as "object" and "entity" have acquired from traditional philosophical use the signification of something set over against the doing or acting. That Fact is literally or etymologically *something done or made* has also the advantage of suggesting that the knowing and identifying, as ways of acting, are as much ways of doing, of making (just as much "behaviors," we may say), as are chopping wood, singing songs, seeing sights, or making hay.

For the purpose of facilitating further inquiry what has been said will be restated in negative terms. We shall *not* proceed as if we were concerned with "existent things" or "objects" entirely apart from men, nor with men entirely apart from things. Accordingly, we do not have on our hands the problem of forcing them into some kind of organization or connection. We shall proceed by taking for granted human organisms developed, living, carrying on, of and in the cosmos. They are there in such system that their operations and transactions can be viewed directly—including those which constitute knowings. When they

[8] It may be well to repeat here what has already been said. In making the above statement we are not attempting to legislate concerning the proper use of a word, but are stating the procedure we are adopting.

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are so viewed, knowings and knowns come before us as differentiated within the factual cosmos, not as if they were there provided in advance so that out of them cosmos—system—fact—knowledge—have to be produced. Fact, language, knowledge have on this procedure cosmic status; they are not taken as if they existed originally in irreconcilably hostile camps. And this again is but to say that we have to do with knowings, both as to materials and workmanship, in the sense of ordinary science.[9]

The reader will note (that is, observe, give heed to) the superiority of our position with respect to observation over that of the older epistemological constructions. Who would assert that he can properly and in a worth-while manner *observe* a "mind" *in addition to* the organism which is engaged in the transactions pertinent to it in an observable world? The fact that attempted affirmative answers result in construing observation as private introspection is sufficient evidence of departure from procedures having scientific standing.[10] And the assertion or belief that things as "objects" outside of and apart from human operations are observed or are observable has comparable absurdity when carefully guarded statement is demanded of it. Observation is operation; it is human operation. If attributed to a "mind" it itself becomes unobservable. If surveyed in an observable world —in what we call cosmos or nature—the object observed is as much a part of the operation as is the observing organism.

This statement about observation, in name and fact, is necessary to avoid misinterpretation. It is not "observation," however, to which we are here giving inquiry; we shall not even attempt to make the word "firm" at a later stage. In the range in which we shall work—the seeking of sound names for processes involving naming—observation is always involved and such observation in this range is in fusion with name-application, so that neither takes place except in and through the other, whatever further applications of the word "observation" (comparable to applications of "naming" and of "knowing") may in widened inquiries be required.

[9] It is practically impossible to guard against every form of misapprehension arising from prevalent currency of language-attitudes holding over from a relatively pre-scientific period. There are probably readers who will translate what has been said about knowings-knowns into terms of epistemological idealism. Such a translation misses the main point—namely, that man and his doings and transactions have to be viewed as facts within the natural cosmos.

[10] "Conceptions derived from . . . anything that is so occult as not to be open to public inspection and verification (such as the purely psychical, for example) are excluded," Dewey, *Logic*, p. 19.

If we have succeeded in making clear our position with respect to the type of names for which we are in search, it will be also clear that this type of name comes in clusters. "Fact" will for us be a central name with other names clustering around it. If "observation" should be taken as central, it in its turn could be made firm only in orientation to its companionate cluster. In any case much serious coöperative inquiry is involved. In no case can we hope to succeed by first setting up separated names and then putting them in pigeonholes or bundling them together with wire provided from without. Names are, indeed, to be differentiated from one another, but the differentiation takes place with respect to one another in clusters; and the same thing holds for clusters that are differentiated from each other. This procedure has its well-established precedents in scientific procedure. The genera and species of botany and zoology are excellent examples—provided they are taken as determinations in process and not as taxonomic rigidities.[11]

III

In certain important respects we have placed limitations on the range of our inquiry, and on the methods we use. The purpose is to increase the efficiency of what we do. These decisions have been made only after much experimentation in manners of organization and presentation. The main points should be kept steadily in mind as we now stress them.

As already said, we do not propose to issue any flat decrees as to the names others should adopt. Moreover, at the start we shall in some cases not even declare our permanent choices, but instead will deliberately introduce provisional "second-string" names. For this we have two sound reasons. First our task requires us to locate the regions (some now very largely ignored) which are most in need of firm observation. Second, we must draw upon a dictionary stock of words which have multiple, and often confusedly tangled, applications. We run the risk that the name first introduced may, on these accounts, become involved in misapprehensions on the reader's part, sufficient to ruin it for the future. Hence the value of attempting to establish the regions to be named

[11] Other defects in the language we must use, in addition to the tendency towards prematurely stiffened namings, offer continuous interference with communication such as we must attempt. Our language is not at present grammatically adapted to the statements we have to make. Especially is this true with respect to the prepositions which *in toto* we must list among the "vague words" against which we have given warning. Mention of special dangers will be made as occasion arises. We do the best we can, and discussion should never turn on some particular man's personal rendering of some particular preposition in some particular passage.

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by provisional namings in the hope that we will secure stepping stones to better concentration of procedure at the end.

We do not propose in this inquiry to cover the entire range of "knowledge," that is, the entire range of life and behavior to which the word "knowledge" at one time or another and in one way or another can be applied. We have already listed "knowledge" as a vague word and said that we shall specify "knowings" and "knowns" for our attention. "Knowledge" will remain throughout our entire treatment a word referring roughly to the general field within which we select subject-matters for closer examination. But even for the words "knowings" and "knowns" the range of common application runs all the way from infusoria approaching food to mathematicians operating with their most recondite dimensions. We shall confine ourselves to a central region: that of identifications under namings, of knowing-by-naming, of "specified existence," if one will. Time will take care of the passage of inquiry across the border regions from naming-knowing to the simpler and to the more complex forms.

We shall regard these naming-knowings directly as a form of knowings. *Take this statement literally as it is written.* It means that we do not regard namings as instrumental or in some other sense ancillary to something else called knowings (or knowledge). We do not split a corporeal naming from a presumptively non-corporeal or "mental" knowing; neither do we permit a mentaloid "brain" to make pretenses as substitute for a "mind" and thus maintain a split between knowings and namings. This is postulation on our part. But surely what we found in the logics under the separation of spoken word from speaking man would be enough to justify any postulate that offered hope of relief. The acceptance of this postulate, even strictly during working hours, may be difficult. We do not expect assent at the start, and we do not here argue the case. We expect to display the value in further action.

In general we shall postpone discussion of many intricately inter-related problems that suggest themselves as we go along. To the more important of these we shall devote special short papers when opportunity offers. This seems the only course practicable if we are not to wander so widely at times that objectives will be lost to view. Above all we assert and continue to assert—and it might be well if we could repeat it on every page—that our procedure is solely by hypothesis.

IV

Thus far we have been discussing the conditions under which a search for firm names for knowings and knowns must be carried

on. In summary our procedure is to be as follows: Working under hypothesis we concentrate upon a special region of knowings and knowns; we seek to spotlight aspects of that region that today are but dimly observed; we suggest tentative namings; through the development of these names in a cluster we hope advance can be made towards construction under dependable naming in the future.

1. *Fact, Event, Designation.* We start with the cosmos of knowledge—with nature as known and as in process of being better known—ourselves and our knowings included. We name this cosmos *fact,* with all its aspects—all its knowings and all its knowns—included. We do *not* introduce, either by hypothesis or by dogma, knowers and knowns as prerequisites to fact. Instead we observe both knowers and knowns as factual, as cosmic; and never—either of them—as extra-cosmic accessories.

We specialize our studies upon the region of naming-knowings, of knowings through namings, wherein we identify two great factual aspects to be examined. We name these *event* and *designation.* The application of the word "fact" may perhaps in the end need to be extended beyond the behavioral processes of event-designation. We shall note the locus of such contingent extension, leave the way open for the future, and proceed to cultivate the garden of our choice, namely, the characteristic Fact that we have before us.

Upon these namings the following comments will, for the present, suffice:

(*a*) In Fact-Event-Designation we do not have a three-fold organization, nor a two-fold; we have instead one system.

(*b*) Given the language and knowledge we now possess, the use of the word "fact" imposes upon its users the necessity of selection and acceptance. This manifest status is recognized terminologically through our adoption of the name "designation."

(*c*) The word "aspect" as here used is not stressed as information-giving. It must be taken to register—register, and nothing more—the duplex, aspectual observation and report that is required, if we are to characterize Fact at all. The word "phase" may be expected to become available for comparable application when, under the development of the word "aspect," we are sufficiently advanced to consider time-alternations and rhythms of event and of designation in knowledge process.[12]

(*d*) "Event" involves in normal use the extensional and the

[12] "Aspect" and "phase" may stand, therefore, as somewhat superior to the "vague words" against which we give warning, though not as yet presenting positive information in our field.

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durational. "Designation" for our purposes must likewise be so taken. The Designation we postulate and discuss is not of the nature of *a* sound or *a* mark applied *as* a name *to* an event. Instead of this it is the action, the activity, the behavioral action and activity, of naming, through which Event appears in our knowledge as Fact.

(*e*) We expect the word "fact" to be able to maintain itself for terminological purposes, and we shall give reasons for this in a succeeding paper, though still retaining freedom to alter it. As for the words "event" and "designation," their use here is provisional, and replacement is more probable. Should we, for example, now adopt such words as "existence" and "name," then, as the case stands at this stage, both words would carry with them to most readers many implications false to our intentions —the latter even more than the former; understanding of our procedure would then become distorted and ineffective.

(*f*) "Fact," in our use, is to be taken with a range of reference as extensive as is allotted to any other name for cosmos, universe, or nature, where the context shows that knowledge, not poesy, is concerned. It is to be taken with its pasts and its futures, its growings-out-of and its growings-into, its transitions of report from poorer to richer, and from less to more. It is to be taken with as much solidity and substantiality as nature, universe, or world, by any name whatsoever. It is to be taken, however, with the understanding that instead of gratuitous insertion of an unknown something as foundation for the factually known, what we are taking is the knowledge in full—the knowings-knowns as they come: namely, both in one, and without appeal to cosmic tortoise to hold up cosmic elephant to hold up cosmic pillar to hold up the factual cosmos of our consideration.

(*g*) To a myopic and short-time view Event and Designation appear as separates. The appearance does no harm if it is held where it belongs within narrow ranges of inquiry. For a general account of knowings and knowns the wider envisionment is required.

(*h*) Overlapping Fact, as we are postulating it within the range of namings, are, on one side, perceptions, manipulations, habituations, and other adaptations; and, on the other side, symbolic-knowledge procedures such as those of mathematics. We shall be taking these into account as events-designated, even though for the present we are not inquiring into them with respect to possible designatory, quasi-designatory, or otherwise fact-presenting functions of their own along the evolutionary line. Our terminology will in no way be such as to restrict consideration

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of them, but rather to further it, when such consideration becomes practicable.

(*i*) If Designations, as we postulate them for our inquiry, are factually durational-extensional, then these Designations, as designa*tings, are* themselves Events. Similarly, the Events as designational, *are* Designations. It is not the subject-matter before us, but the available language forms that make this latter statement difficult. The two uses of "are" in the sentences "Events are Designations" and "Designations are Events" differ greatly, each "are" representing one of the aspects within [13] the broader presentation of Fact. To recognize events as designated while refusing to call them designations in the activity sense, would be a limitation that would maintain a radical split between naming and named at the very time that their connective framework was being acknowledged. Our position is emphatic upon this point. It is clear enough that in the older sense events are not designations; it should be equally clear and definite that in our procedure and terminology they are designational—designation—or (with due caution in pluralizing) Designations. To control the two uses of the word "are" in the two forms of statement, and to maintain the observation and report that Designations are Events, while also Events are Designations—this is the main strain our procedure will place upon the reader. Proceeding under hypothesis (and without habituation to hypothesis there will be no advance at all) this should not be too severe a requirement for one who recognizes the complexity of the situation and has an active interest in clearing it up.

(*j*) Most generally, Fact, in our terminology, is not limited to what any one man knows, nor to what is known to any one human grouping, nor to any one span of time such as our own day and age. On the designatory side in our project of research it has the full range and spread which, as we said above, it has on the event side, with all the futures and the pasts, the betters and the poorers, comprised as they come. In our belief the Newtonian era has settled the status of fact definitely in this way for our generation of research, at the least. First, Newtonian mechanics rose in the shelter of its glorified absolutes to credal strength. Then at the hands of Faraday, Clerk-Maxwell, and Einstein, it lost its absolutes, lost its credal claims, and emerged chastened and improved. It gained thus the high rating of a magnificent approximation as compared with its earlier trivial self-rating as eternal certainty. The coming years—fifty, or a thousand, whatever it takes—remain quite free for change; any intelligent voice

[13] A vague word, be it observed.

will say this—the trouble is to get ears to hear. Our new assurance is better than the old assurance. The full knowledge—knowing and the known—event and designation—go forward together. Eventuation is observed. Accept this in principle, and not merely as a casual comment on an accidental happening—you then have before you what our terminology recognizes when it places Fact-in-growth as sound enough base for research with no need to bother over minuscular mentals or crepuscular reals alleged to be responsible for it.

2. *Circularity.* When we said above that designations are events and events designations, we adopted *circularity*—procedure in a circle—openly, explicitly, emphatically. Several ways of pretending to avoid such circularity are well known. Perhaps at one end everything is made tweedledum, and perhaps at the other everything is made tweedledee, or perhaps in between little tweedledums and little tweedledees, companionable but infertile, essential to each other but untouchable by each other, are reported all along the line. We have nothing to apologize for in the circularity which we choose in preference to the old talk-ways. We observe world-being-known-to-man-in-it; we report the observation; we proceed to inquire into it, circularity or no circularity. This is all there is to it. And the circularity is not merely round the circle in one direction; the course is both ways round at once in full mutual function.

3. *The Differentiations That Follow.* Given fact, observed aspectually as Event and as Designation, our next indicated task is to develop further terminological organization for the two aspects separately. We shall undertake this shortly and leave the matter there so far as the present preliminary outline is concerned. But to aid us we shall require firm statement as to certain tools to be used in the process. We must, that is, be able to name certain procedures so definitely that they will not be confounded with current procedures on a different basis. Events will be differentiated with respect to a certain range of plasticity that is comparable in a general way to the physical differentiations of gaseous, liquid, and solid. For these we shall use the names, Situation, Occurrence, and Object. As for Designation, we shall organize it in an evolutionary scheme of behavioral sign processes of which it is one form, the names we apply being: Sign, Signal, Name, and Symbol. The preliminary steps we find it necessary to take before presenting these differentiations are: first, steady maintenance of a distinction of the various branches of scientific inquiry with respect to selected subject-matters of research rather than in terms of materials assumed to be waiting for research in ad-

vance; second, a firm use of the word "specification" to designate the type of naming to be employed as contrasted with the myriad verbal processes that go by the name of "definition"; third, the establishment of our right to selective observational control of specific situations within subject-matters by a competent distinction of *trans*-actions from *inter*-actions.

4. *Sciences as Subject-Matters.* The broad division of regions of scientific research commonly recognized today is that into the physical, the biological, and the psychological. However, mathematics, where inquiry attains maximum precision, lacks any generally accepted form of organization with these sciences; and sociology, where maximum imprecision is found, also fails of a distinctive manner of incorporation.[14] Fortunately this scheme of division is gradually losing its rigidities. A generation or two ago physics stood aloof from chemistry; today it has constructively incorporated it. In the biological range today, the most vivid and distinctive member is physiology; yet the name "biology" covers many gross adaptational studies not employing the physiological techniques; in addition the name "biology" assuredly covers everything that is psychological, unless perchance some "psyche" is involved that is "non"- or "ultra"-human. The word "psychological" itself is a hold-over from an earlier era, in which such a material series as "*the* physical," "*the* vital," and "*the* psychic" was still believed in and taken to offer three different realms of substance presented as raw material by Nature or by God for our perpetual puzzlement. If we have to establish knowings and knowns in a single system of Fact, we certainly must be free from addiction to a presumptive universe compounded out of three basically different kinds of materials. Better said, however, it is our present freedom from such material enthrallment, attained for us by the general advance of scientific research, that at long last has made us able to see all knowings and knowns by hypothesis as in one system.

Within Fact we shall recognize the distinctions of the scientific field as those of subject-matters, and not as those of materials,[15] unless, indeed, one speaks of materials only in the sense that

[14] We shall deal with the very important subject of mathematics elsewhere. Sociological inquiries, with the exception of anthropology, are hardly far enough advanced to justify any use of them as subject-matters in our present inquiry.

[15] An extended consideration of many phases of this issue and approaches to its treatment is given by Coleman R. Griffith in his *Principles of Systematic Psychology*, University of Illinois Press, 1943. Compare the section on "The Scientific Use of Participles and Nouns," pp. 489–497, and various passages indexed under "Science."

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their differences themselves arise in and are vouched for solely by the technical procedures that are available in the given stages of inquiry. Terminologically, we shall distinguish *physical, physiological,* and *behavioral*[16] regions of science. We shall accept the word "biological" under our postulation as covering unquestionably both physiological and behavioral inquiries, but we find the range of its current applications much too broad to be safe for the purposes of the present distinctive terminology. The technical differentiation in research of physiological procedures from behavioral is of the greatest import in the state of inquiry today, and this would be pushed down out of sight by any heavy stress on the word "biological," which, as we have said, we emphatically believe *must* cover them both. We wish most strongly to stress that physical, physiological, and behavioral inquiries in the present state of knowledge represent three great distinctive lines of technique; while any one of them may be brought to the aid of any other, nevertheless direct positive extension of statement from the firm technical formulations of one into the information-stating requirements of another can not be significantly made as knowledge today stands. Physical formulation does not directly yield heredity, let the genes prove all they may; nor does physiological formulation directly yield word-meanings, sentences, and mathematical formulas. To complete the circle, behavioral process, while producing physical science, can not directly in its own procedure yield report on the embodied physical event. This circularity, once again, is in the knowledge—in the knowings and the knowns—not in any easy-going choice we are free and competent to make in the hope that we can cleave to it, evidence or no evidence.

5. *Specification.* The word "definition" covers precise symbolic statements in mathematics; it covers procedures under Aristotelian logic; it covers all the collections of word-uses, old and new, which the dictionaries assemble, and many still more

[16] Our use of the word "behavioral" has no "behavioristic" implications. We are no more behavioristic than mentalistic, disavowing as we do, under hypothesis, "isms" and "istics" of all types. The word "behavior" is in frequent use by astronomers, physicists, physiologists, and ecologists, as well as by psychologists and sociologists. Applied in the earlier days of its history to human conduct it has drifted along to other uses, pausing for a time among animal-students, and having had much hopeful abuse by mechanistic enthusiasts. It rightfully belongs, however, we believe, where we are placing it. Such a word as "conduct" has many more specialized implications than has "behavior" and would not serve at all well to supply the name for a great division of research. We shall be open for any substitutes as work proceeds, but thus far have failed to find a more efficient or safer word to use. In such a matter as this, long-term considerations are much more important than are the verbal fashions of a decade or two.

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casual linguistic procedures. The word "definition" must manifestly be straightened out, if any sound presentation of knowings and knowns is to be secured. We have fair reason to believe that most of the difficulty in what is called the "logic of mathematics" is due to an endeavor to force consolidation of two types of human behavior, both labeled "definition," though one stresses heavily while the other diverges from the use of namings, without preliminary inquiry into the simpler facts of the life linguistic. In our terminology we shall assign the word *definition* to the region of mathematical and syntactical consistency; while for the lesser specimens of "dictionary definition" we shall employ the name *characterization.* In our own work in these papers we shall attempt no "definition" whatever in the formal sense we assign the word. We shall at times not succeed in getting beyond preliminary characterization. Our aim in the project, however, is to advance towards accuracy in naming such as science ever increasingly achieves. Such accuracy in naming we shall call *specification.* Consider what the word "heat" stood for in physics before Rumford and Joule, and what it tells us in physical specification today. Consider the changes the word "atom" has undergone in the past generation. Modern chemical terminology is a highly specialized form of specification of operations undertaken. The best illustration for our purposes is probably, however, the terminology of genera and species. In the days when animals were theological specialities of creation, the naming level was that of characterization. After demonstration had been given that species had natural origins, scientific specification as we understand it developed. We still find it, of course, straining at times towards taxonomic rigidities, but over against this we find it forever rejuvenating itself by free inquiry up even to the risk of its own obliteration. Abandonment of the older magic of name-to-reality correspondence is one of the marks of specification. Another will be observed when specification has been clearly differentiated from symbolic definition. In both its aspects of Event and Designation we find Fact spread in "spectrum-like" form. We use "specification" to mark this scientific characteristic of efficient naming. Peirce's stress on the "precept that is more serviceable than a definition" involved the attitude we are here indicating. Specification operates everywhere in that field of inquiry covered by affirmation and assertion, proposition and judgment, in Dewey's *Logic,* as inquiry. The defects we exhibited in the traditional logics [17] were due to their lack of attention to specification; at no

[17] "On a Certain Vagueness in Logic," this JOURNAL, Vol. XLII (1945), pp. 5–27; 39–51. The Peirce citation is used on p. 8.

point in our examination did we make our criticisms rest on issues of consistency in definition.

6. *Transaction.* We have established Fact as involving both Designation and designated Event. We have inspected inquiry into Fact in terms of subject-matters determinable under the techniques of inquiry, and not in terms of materials presented from without.[18] Both treatments make selection under hypothesis a dominant phase of procedure. But selection under hypothesis affects all observation. We shall take this into account terminologically by contrasting events reported in interactions with events reported as transactions. A special paper will follow later dealing with this issue central to our procedure: the right, namely, to open our eyes to see. Here we can only touch broadly upon it. Prescientific procedure largely regarded "things" as possessing powers of their own, under, or in, which they acted. Galileo is the scientist whose name is most strongly identified with the change to modern procedure. We may take the word "*action*" as a most general characterization for events where their durational process is being stressed. Where the older approach had most commonly seen *self-action* in "the facts," the newer approach gained organization under Newton as a system of interaction, marked especially by the third "law of motion," namely, that action and reaction are equal and opposite. The classical mechanics is such a system of interaction involving particles, boundaries, and laws of effects. But before it was developed—before, apparently, it could develop—a different type of observation was made that was basic to it, and that we may call transactional. This may be seen in Galileo's report on inertia, appearing in the Newtonian formulation as the first "law of motion," namely, that any motion uninterfered with will continue in a straight line. This set up a motion, directly, factually, as event.[19] The field of knowings and knowns in which we are working requires transactional observation, and this is what we are giving it, and what our terminology is designed to deal with. The epistemologies, logics, psychologies, and sociologies today are still largely on a self-actional basis. In psychology a number of tentative efforts are being made towards an *interactional* presentation, with balanced

[18] Again a very vaguely used word.

[19] In the psychological range the comparable fundamental laboratory experiments of import for our purposes are those of Max Wertheimer upon the direct visual observability of motions. *See* "Experimentelle Studien über das Sehen von Bewegungen," *Zeitschrift für Psychologie,* Vol. 61 (1912), pp. 161–265. In a much weakened form his results are used in the type of psychology known as "Gestalt," but in principle they still await constructive development.

components. Our position is that the traditional language currently used about knowings and knowns (and most other language about behaviors, as well) shatters the subject-matter into fragments in advance of inquiry and thus destroys instead of furthering comprehensive observation for it. We hold that observation must be set free, and that, to advance this aim, a postulatory appraisal of the main historical patterns of observation should be made, and identifying namings provided for them. Our own procedure, not as more real or more generally valid than any other, but as the one that at this stage is needed in the field in which we work, is the *transactional,* in which is asserted the right to see together, extensionally and durationally, much that conventionally is talked of as if composed of irreconcilable separates. In the same spirit in which physicists perforce use both particle and wave presentations we here employ both interactional and transactional observation.[20] Important specialized studies belong in this field in which the organism is made central to attention. This is always legitimate in all forms of inquiry within a transactional setting, so long as it is deliberately undertaken and not confusedly, or with "self-actional" implications. As place-holders in this region of nomenclature we shall provisionally set down *behavior-agent* and *behavior-object.* They represent specialized interactional treatments within the wider transactional presentation, where commonly organisms or persons or actors are uncertainly named on the one side and environments are named in variegated forms on the other.

7. *Situation, Occurrence, Object.* We may now proceed to distinguish Situation, Occurrence, and Object as forms of Event. Event is durational-extensional; it is that which "takes place," that which is inspected as "a taking place." These names do not provide a "classification," unless classification is understood as a focusing of attention within subject-matters rather than as an arrangement of materials. The word "situation" is used with increasing frequency today, but so waveringly that the more it is used the worse its own status seems to become. We insist that in simple honesty it stand *either* for the environment to an object

[20] The word "field" is a strong candidate for use in the transactional region. For the present, however, it is impracticable. It has not been fully clarified as yet for physics, and the way it has been employed in psychological and social studies has been impressionistic and often unscrupulous. It must remain, therefore, on our list of vague words, candidates for improvement. When the physical status of the word is settled—and Einstein and his immediate associates have long concentrated on this problem—then if the terminology can be transferred to behavioral inquiry, we shall know how to make the transfer with integrity.

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(interactionally), *or* for the full situation including whatever object may be selectively specified within it (transactionally), and that there be no wavering. We shall establish our own use for the word *situation* in this latter form. When an event is of the type that is readily observable in transition within the ordinary spans of human discrimination of temporal and spatial changes, we shall call it *occurrence*. The ordinary use of "event" in daily life is close to this, and if we generalize the application of the word, as we have provisionally done, to cover situation and object as well as occurrence, then we require a substitute in the more limited place. Occurrence fairly fills the vacancy. *Object*[21] is chosen as the clearly indicated name for stabilized, enduring situations, for occurrences which need so long a span of time, or perhaps so minute a space-change, that the space and time changes are not themselves within the scope of ordinary, everyday perceptual attention. Thus any one of the three words, Situation, Occurrence, Object, may, if focusing of attention shifts, spread over the range of the others, all being equally held as Event. We have here a fair illustration of what we have previously called a word-cluster. The Parthenon is an object to a visitor, and has so been for all the centuries since its construction. It is nevertheless an occurrence across some thousands of years. While for certain purposes of inquiry it may be marked off as object-in-environment, for thoroughgoing investigation it must be seized as situation, as to which the object-specification is at best one phase or feature. There is here no issue of reality, no absolute yes or no to assert, but only free determination under inquiry.

8. *Sign, Signal, Name, Symbol.* Turning to Designation, our immediate problem is not that of distinguishing the variety of *its* forms. Specification, the form most immediately concerning us, has already been noted. What we have to do instead is to place designation itself as one among a series of behavioral events. Circularity is again here strikingly involved. Our treatment must be in terms of Event as much as in terms of Designation, with full convertibility of the two. The event is behavioral. Designation as behavioral event can be viewed as one stage in the range of behavioral evolution from the sensitive reactions of protozoa to the most complex symbolic procedures of mathematics. In this phase of the inquiry we shall alter the naming. Viewing

[21] "The name *objects* will be reserved for subject-matter so far as it has been produced and ordered in settled form by means of inquiry; proleptically, objects are the *objectives* of inquiry." Dewey, *Logic, the Theory of Inquiry*, p. 119. For "situation" see *ibid.*, pp. 66 ff. The word "occurrence" is, as has been indicated, provisionally placed.

the behavioral event, we shall name it directly Name instead of replacing "name" by "designation" as seemed necessary for provisional practical reasons on the obverse side of the inquiry. At a later stage we shall undertake to establish the characteristic behavioral process as *sign*, a process not found in either physical or physiological techniques of inquiry. We shall thus understand the name "sign" to be used so as to cover the entire range of behavioral activity. There are many stages or levels of behaviors, but for the greater part of our needs a three-level differentiation will furnish gross guidance. The lower level, including perceptions, manipulations, habituations, adaptations, etc., we shall name *signal* (adapting the word from Pavlov's frequent usage). Where organized language is employed as sign, we shall speak of *name*. In mathematical regions (for reasons fully to be discussed later) we shall speak of *symbol*. Signal, Name, and Symbol will be the three differentiations of Sign, where "sign" indicates most broadly the "cognitive" or "knowledge-like" aspects of behavior in a long ascending series. Vital to this construction, even though no development for the moment may be offered, is the following statement: The name "Sign" and the names adjusted to it *shall all be understood transactionally*, which in this particular case is to say that they do not name items or characteristics of organisms alone, nor do they name items or characteristics of environments alone, but in every case *activity* that occurs as *of both together*.

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By the use of Sign-Signal-Name-Symbol we indicate the locus for the knowing-naming process and for other behavioral processes within cosmos. By the use of Fact-Event-Designation we specify the process of event-determination through which cosmos is presented as itself a locus for such loci. The two types of terminology set forth different phases of a common process. They can be so held if we insist upon freedom for transactional observation in cases in which ancient word-forms have fractured fact, and if we lose fear of circularity. It is our task in later papers to develop this terminology and to test it in situations that arise.

For the present our terminological guide-posts, provisionally sketched, are as follows:

SUGGESTED EXPERIMENTAL NAMING

Fact:	**Our cosmos as it is before us progressingly in knowings through namings.**
Event:	**"Fact" named as taking place.**
Designation:	**Naming as taking place in "fact."**

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Physical, Physiological, Behavioral:	Differentiations of the techniques of inquiry, marking off subject-matters as sciences under development, and not constricted to conform to primitive pre-views of "materials" of "reality."
Characterization:	Linguistic procedure preliminary to developed specification, including much "dictionary-definition."
Specification:	Accuracy of designation along the free lines through which modern sciences have developed.
Definition:	Symbolic procedure linguistically evolved, not directly employing designatory tests.
Action (Activity):	Event stressed with respect to temporal change.
Self-Action:	Pre-scientific presentation in terms of presumptively independent "actors," "souls," "minds," "selves," "powers," or "forces," taken as activating events.
Interaction:	Presentation of particles or other objects organized as operating upon one another.
Transaction:	Functional observation of full system, actively necessary to inquiry at some stages, held in reserve at other stages, frequently requiring the breaking down of older verbal impactions of naming.
Behavior-Agency:	Behavioral organic action, interactionally inspected within transaction; agency in the sense of *re*-agent rather than of act*or*.
Behavior-Object:	Environmental specialization of object with respect to agent within behavioral transaction.
Situation:	Event as subject-matter of inquiry, always transactionally viewed as the full subject-matter; never to be taken as detachable "environment" over against object.
Occurrence:	Event designated as in process under transitions such as are most readily identifiable in everyday human-size contacts.
Object:	Event in its more firmly stabilized forms—never, however, as in final fixations—always available as subject-matter under transfer to situational inspection, should need arise as inquiry progresses.
Signs:	Characteristic adaptational behavior of organism-environment; the "cognitive" in its broadest reaches when viewed transactionally (and not as organic or environmental specialty).
Signal:	Transactional sign in the perceptive-manipulative ranges.
Name:	Specialized development of sign among hominidae; apparently not reaching the full designational stage (excepting, perhaps, on blocked evolutional lines) until *homo sapiens*.
Symbol:	A later linguistic development of sign, forfeiting specific designatory applications to gain heightened efficiency in other ways.

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We regard the following as common-sense observation upon the manner of discourse about knowledge which we find current around us.

The knowledge of knowledge itself that we possess today is weak knowledge—perhaps as weak as any we have; it stands greatly in need of de-sentimentalized research.

Fact is notoriously two-faced. It is cosmos as noted by a speck of cosmos. Competent appraisal takes this into account.

What is beyond Fact—beyond the knowing and the known—is not worth bothering about in any inquiry undertaken into knowings and knowns.

Science thrives within limits such as these, and it is our best knowledge. Specification thrives in, and requires, such limits; why should not then also inquiry and specification for the knowings and the knowns themselves?

Knowings are behaviors. Neither inquiry into knowings nor inquiry into behaviors can expect satisfactory results unless the other goes with it hand in hand.[22]

JOHN DEWEY
ARTHUR F. BENTLEY

BOOK NOTES

Approaches to World Peace. Fourth Symposium of the Conference on Science, Philosophy, and Religion in their Relation to the Democratic Way of Life. Edited by LYMAN BRYSON, LOUIS FINKELSTEIN, ROBERT M. MACIVER. Distributed by Harper and Brothers, New York. 1944. xviii + 974 pp. $5.00.

Wars have occurred under every type of political system and every kind of culture. The minimum conclusion this evidence would seem to enforce is that any theory which would find the cause and cure of war in any particular political or cultural system is extremely implausible. This is not to deny that some po-

[22] Attention is called in summary to the "vague words" which at times one is compelled to use. "Knowledge," "thing," "field," "within," and "without" have been so characterized in text or footnotes; also all prepositions and the use of "quotes" to distinguish names from the named; and even the words "vague" and "firm" as we find them in use today. "Aspect" and "phase" have been indicated as vague for our purposes today, but as having definite possibilities of development as we proceed. It will be noticed that the word "experience" has not been used in the present text. No matter what efforts have heretofore been made to apply it definitely, it has been given conflicting renderings by readers who among them, one may almost say, have persisted in forcing vagueness upon it. We shall discuss it along with other abused words at a later place.

litical and cultural systems are more warlike and aggressive than others. But a difference in degree is not a difference in kind. If instead of large-scale political and cultural systems we take the small-scale beliefs of individuals, a similar conclusion is demanded by the evidence. No one, as far as I know, has catalogued the beliefs of the individuals engaged in our two world wars. However, it is not very risky to assume that among the tens and hundreds of millions of individuals involved, every variety of belief would be found represented—every variety except, of course, absolute pacificism. The latter is the only belief that is incompatible with waging war.

Only some fifty-seven individuals contributed to the volume under review. Although not every kind of extant belief is represented, the volume does contain a fair proportion of the major cultural kinds. Politically, all believe in the democratic form. But on matters of religion, philosophy, culture, ethics, there is great diversity. There are monists and pluralists, absolutists and relativists, supernaturalists and naturalists, transcendentalists and empiricists, the religious and the non-religious, westerners and far easterners. Despite the diversity in ultimate beliefs, they all believe in peace and earnestly seek to promote its enduring realization. And all, it must also be noticed, believe in war, at least to the extent of supporting the war-activity of the United Nations. (Except, perhaps, Aldous Huxley, who, to my knowledge, still maintains his absolute pacifist position.)

Unless one supposes there is something *sui generis* about the nature of the contributors (a supposition I can not persuade myself to make) their common belief in peace and their common support of our side in the war, seems to me to refute their partisan arguments on behalf of some one religious, cultural, philosophical, or ethical basis for enduring peace. If their partisan arguments are sound, then all the participants in the symposium who differ are not true believers in or reliable supporters of peace. No contributor draws this implication and none would, I imagine, give it credence if it were drawn. Since they are all in the same boat on the matter of war and peace, why does each insist on paddling his own ideological canoe?

The partisans of supernaturalism and transcendentalism are the most indefatigable of all the canoe-paddlers. With great conviction, but without a grain of historical authority, they maintain that belief in supernatural or transcendental values is the only basis of enduring peace. Were there no wars in Europe or by Europeans before the rise of modern science and the consequent corruption of supernaturalist faith they so pathetically lament?

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Has Christian supernaturalism ever been an effective barrier preventing its believers from engaging in war? Or its officials—ministers and priests—from supporting war? And what of such supernaturalisms as Mohammedanism and Shintoism? A supernaturalist faith that is also pacifist will, naturally, be peace-promoting. However, to be a pacifist it is not at all necessary to be a supernaturalist (*pace* Aldous Huxley) as the records of conscientious objectors in this war and the last conclusively show. Besides, as already noticed, the very individuals who argue that belief in supernaturalism or transcendentalism is a *sine qua non* of peace, support our war-activity. Unless they are *sui generis,* why should conversion of the masses to their ways of believing bring about enduring peace? Finally, one may ask whether, as a matter of fact, even a bare majority of the people now engaged in war-making are anti-supernaturalists and/or anti-transcendentalists?

There are two unexamined and unexposed assumptions common to the great majority of the essays. And both seem to me false. One assumption is that the masses of the world must be converted and educated to the idea of peace. Once a war situation develops, the masses, like our contributors, will fight. But is there a shred of evidence that any of the belligerent governments were pushed into war by the insistent war-lust of their mass populations? President Roosevelt, some years before 1939, estimated that ninety per cent of the total world population were against war. And he underestimated the percentage, if anything. But the ten per cent created the war situation nevertheless and the ninety per cent are in it. The practical problem of securing world peace therefore would seem to be that of devising ways and means whereby the ninety per cent will be enabled to control the ten per cent and not the other way round.

The second assumption is that enduring peace requires some ideological underpinning, be it metaphysical, philosophical, religious, cultural, sociological, political, or what not. This seems to me on a par with arguing that for human beings to be opposed to disease and to favor health they need to be sustained by some ultimate doctrine. It is war, not peace, that needs justification or rationalization by "ultimate principles." The greatest educator against war is the experience of war just as the greatest educator against malaria or any other dread disease is the experience of it. When wars were waged by professionals, social experience of war was limited. Educational programs against war were then necessary. But in these days of world-wide mass wars, the education is accomplished by direct experience. There is something grotesquely ludicrous in the notion that what the masses of

China, Europe, Russia, or even America need to make them supporters of peace is some ideology.

There was a time when a man could beat his plowshare into a sword and go to war. Such times are past. Wars today are the most complex of all undertakings of the state. They require long-range preparation, a planned economy. The problem of world peace is the problem of world control of the war-making powers of states. A few of the essays in this volume, those dealing with disarmament, international political and economic organization, are relevant to this issue. The bulk of this volume seems to me, however, to be not merely irrelevant but a disservice to the cause of peace, for it distracts attention from the real source of trouble and hence from the real cures.

JOSEPH RATNER

THE COLLEGE OF THE CITY OF NEW YORK

Modern Political Philosophies and What They Mean. LOUIS WASSERMAN. (The New Home Library.) Philadelphia: Blakiston Company. 1944. viii + 287 pp. $.69.

This "concise, easily understood and unbiased guide to the Social Doctrines, Political 'Isms,' and Ideologies," could serve to recall to the mind of the general reader the bare outlines of the main approaches to modern political theory. It is accurate, though it offers no new insights. The author's style, unfortunately, is dull and fails to hold the reader. A popularized textbook lacking a stimulating presentation can not hope to fulfill its aim. The book also contains a series of brief summaries of the political organizations of the states of the world and a very adequate bibliography.

HENRY M. MAGID

FORT LOGAN, COLORADO

OTHER NEW BOOKS AND JOURNALS

PHILOSOPHY. Vol. XX, No. 75. Scientific Method in Social Studies: *A. D. Ritchie.* Martin Buber's "I and Thou": *Helen Wodehouse.* Mind in Nature: *Hilda D. Oakeley.* Politics in Culture: *W. D. Lamont.* Whitehead's Philosophy; Propositions and Consciousness: *S. E. Hooper.*

JOURNAL OF THE HISTORY OF IDEAS. Volume VI, Number 2. The Conception of Christendom in Renaissance England: *Franklin Le Van Baumer.* Bookburning and Censorship in Ancient Rome: *F. H. Cramer.* The Cult of Rousseau and the French Revolution: *G. H. McNeil.* Wolfgang Menzel: Pioneer of Integral Nationalism:

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R. A. Kann. Notes and Documents—A Contribution to the Medieval Discussion: *Utrum Aristoteles Sit Salvatus: Anton-Hermann Chroust.* Anti-Semitic Ideas in the Middle Ages: *K. W. Deutsch.*

THE PERSONALIST. Spring, 1945. Progress as Personal Achievement: *R. T. Flewelling.* Progress as Value-Directed Science: *H. L. Searles.* Is Science Explanatory? *L. W. Norris.* The Ascetic Temper of Modern Humanism: *B. E. Meland.* What Is It to Philosophize? *Arthur Lapan.* The Religious Apologetic and Program: *G. Y. Rusk.*

NOTES AND NEWS

We regret to announce the death on April 13, 1945, of Ernst Cassirer in New York City at the age of 70. He was Visiting Professor of Philosophy at Columbia University.

The Carus Lectures on "The Meaning of Human History" by Morris Raphael Cohen will be delivered this year at The City College of New York, where he is Professor Emeritus of Philosophy. There will be three lectures as follows: May 17, at 4:00 p.m., "The Task of the Historian"; May 17, at 8:30 p.m., "The Metaphysics of History"; May 18, at 3:00 p.m., "The Tragic View of History." Members of the American Philosophical Association and their guests are cordially invited to attend.

The Fullerton Philosophical Club of Pennsylvania will hold its first annual regional meeting at Bryn Mawr College on Saturday, May 12, 1945. The subject of the morning session will be "The Theory of Experimental Inference" with the following speakers: Walter A. Shewhart, Bell Telephone Laboratories, "The Operational Meaning of Random"; W. Edwards Deming, U. S. Department of Agriculture, "Statistical Inference and Action"; Malcolm Preston, University of Pennsylvania, "Experiment in Psychology"; Paul Ushenko, Princeton University, "Truth in Physics"; C. West Churchman, University of Pennsylvania, "Theory of Experimental Inference." The afternoon session will be devoted to the subject, "Reason and Art," with the following speakers: Abraham Edel, College of the City of New York, "Content and Context in the Theory of Art"; T. T. Lafferty, Lehigh University, "Pragmatism and Reason—A Critical Examination of Recent Criticisms"; Brand Blanshard, Swarthmore College, "Current Structures on Reason."

Information may be obtained by addressing Professor Paul Weiss, Bryn Mawr College, Bryn Mawr, Pennsylvania.

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The American Society for Aesthetics wishes to announce that the *Journal of Aesthetics and Art Criticism,* which (up to and including its current issue, No. 12) has been edited and published by Dr. Dagobert D. Runes, was recently offered by him to the Society and has now become its property.

The Society, which will publish all subsequent issues, has appointed the following editorial staff: *Editor,* Thomas Munro (Cleveland Museum of Art, Cleveland, Ohio); *Associate Editor,* H. G. Schrickel (Carnegie Institute of Technology, Pittsburgh, Pa.); *Managing Editor,* Max Schoen (Carnegie Institute of Technology, Pittsburgh, Pa.); *Reviews Editor,* Helmut Hungerland (128 Indian Road, Piedmont, California).

Articles offered for publication should be sent to the Editor; books for review to the Reviews Editor; and business communications, including subscriptions, changes of address, etc., to the Managing Editor.

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